

LOCAL AND STATE REGULATIONS
OF POTENTIAL RELEVANCE FOR
THE NEW JERSEY PINELANDS

A REPORT TO THE PINELANDS COMMISSION

By

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INTRODUCTION

The contract between Ross, Hardies, O'Keefe, Babcock & Parsons and the Pinelands Commission requires Ross, Hardies, under Task II of the Scope of Services, to provide the Commission with an analysis of state and local regulations, as they affect the Pinelands area, in terms of their consistency with the goals and policies of the Commission as they have developed at this point in time. This report is submitted in response to those contract requirements.

The analysis of local regulations began with a selection of counties and townships by the staff to provide a sampling of local governments representative of the diverse interests and development history in the Pinelands area. Pursuant to the staff's selection, we contacted and interviewed both private and public representatives in the following counties and townships regarding matters within the scope of Task II: Burlington, Atlantic, Cape May and Ocean Counties, and Medford, Shamong, Woodland, Waterford, Manchester, Stafford, Galloway and Upper Townships. In addition, we interviewed a number of interested individuals from other counties and townships. We also reviewed and analyzed the plans and land use regulations from the counties and townships designated by the Commission staff for their consistency and potential conflict with Pinelands

goals, regulations and procedures. This review and analysis is summarized in Chapter One of this report.

Chapter Two of the report reviews the major state regulatory programs that appear to have the most significant potential relationship to Pinelands regulatory concerns. In addition to reviewing the statutes and regulations which implement these programs, we conducted personal and telephone interviews with officials responsible for their administration.

CHAPTER ONE

REVIEW AND ANALYSIS OF LOCAL REGULATIONS

This part of the report contains a discussion of the review and analysis of local land use regulations for consistency and conflict with Pinelands goals and regulations. As should be expected, our work for this task revealed considerable fear of, and animosity toward, the Pinelands program, but we are confident that many of our conclusions will not come as a surprise to the Commission. The municipalities are concerned, for example, that they will be losing many, if at not all, of their powers under the new plan and implementing regulations. Some are concerned about the loss of tax ratables. Many are also concerned that the entire Pinelands Act is being used to further political objectives unrelated to the objectives of the Act. Most of these fears and concerns, we believe, result from a local "fear of the unknown" which besets almost every new regulatory agency. Others, however, represent probably unresolvable philosophical differences and concerns about another layer of government regulating the activities of citizens and governmental bodies within the Pinelands area. Nevertheless, based on our interviews and prior experience, we believe that it is possible, under the implementation scheme provided in the Act, for the Commission to work with municipalities to promote the goals of the Act for the shared benefit of all government levels and to at the same

time put to rest much of the current uneasiness among local governments in the area.

Our review and analysis of local land use regulations was necessarily selective and abbreviated. Therefore, in this portion of our report, we do not analyze each governing body individually. Instead, we have identified individual governments in the context of specific issues only when we determined it was useful to illustrate a point. We have divided our discussion into the two principal areas of potential concern: administrative procedures and substantive regulations. Our discussion begins with a look at the procedural devices now in place at the municipal level. The section on procedures is followed by one on the substantive standards being applied at the local level. Under each section we have attempted to highlight those issues most relevant to decisions the Commission must make in drafting regulations to implement the land management plan of the Pinelands.

A. Procedures: Consistency and Conflict.

Our interviews with governmental officials and private citizens and our review of local regulations have revealed few existing or potential procedural conflicts with Pinelands goals and regulations. Both public officials and private individuals did, however, express concern over procedural matters during the course of our interviews. These concerns can be summarized as follows:

1. Need to protect the rights of all persons and governmental bodies affected by implementation of the Pinelands Act.
2. Need to minimize the detrimental effects of multiple permitting through coordination and clarification of procedures.

All the local governments reviewed have recently revised their ordinances in order to comply with the Municipal Land Use Law (hereinafter "Municipal Act"). This revision has created substantial procedural consistency from municipality to municipality. From a purely procedural standpoint, there are probably no conflicts per se with the Pinelands Act.

1. Protection of Rights of Affected Persons and Governmental Bodies

Our interviews revealed substantial dissatisfaction among applicants, governmental bodies and "concerned" citizens with existing procedures and a strong desire that new procedures and regulations be adopted that more directly address the rights of all persons to be heard before the Commission. Many of the comments were amorphous in nature, with few substantive recommendations for improvement.

a. Public Hearings and Notice

Public hearings under the Municipal Act (See generally, NJSA 40:55D-10) are required to be held on each application for development, or for the adoption, revision or amendment of the master plan. The Municipal Act requires that the public hearings be conducted in a very specific manner, although the individual municipality is empowered to make its own hearing rules. For example, all testimony is

required to be under oath; the presiding officer has the power to administer oaths and issue subpoenas; the agency may exclude irrelevant, immaterial or unduly repetitious evidence; all decisions on applications for development must be in writing and include findings of fact and conclusions thereon. Even more important, the Municipal Act grants the right of cross-examination to all interested parties through their attorneys or directly, if not represented by an attorney, subject to time considerations at the discretion of the presiding officer. While all local governments that we studied require public hearings for applications for development approval, many of the ordinances do not contain the specific provisions governing hearings but only refer to the "requirements of the Municipal Land Use Law."

Section 6h of the Pinelands Act empowers the Commission:

To conduct examinations and investigations, to hear testimony, taken under oath at public or private hearings, on any material matter and to require attendance of witnesses and the production of books and papers.

Section 11 further requires public hearings as part of the review and approval process for county and municipal plans and ordinances. Section 14 requires a public hearing, but without the details which appear in the Municipal Act, for Commission review of final municipal or county approvals of any application for development approval.

The existing rules and regulations utilized by the Pinelands Commission and staff to review and approve appli-

cations for development under the Pinelands Protection Act differ in a number of respects from the public hearing procedures in the Municipal Act. Many of these differences are inevitable and unavoidable in light of the difference in purpose of local development review and Pinelands review and the strict time limits allowed for Pinelands review. Nevertheless, we found a general feeling of resentment toward what local officials and citizens perceive as a lesser degree of "due process" in Commission procedures than in the local procedures mandated by the Municipal Land Use Law.

While constraints dictated by the Pinelands Act will continue to require differences between the procedures used by the Commission and the procedures to which local officials and citizens have become accustomed under the Municipal Act, we are currently engaged in a thorough analysis of post-plan procedural options and are confident that procedures can be structured which will provide for a greater sense of local participation in the Commission review process. Whether the optimum situation can be achieved within the existing confines of the Act is not yet clear. We may be recommending limited amendments to the Act to address procedural problems and, based upon our interviews, would hope for local support of any such amendments that prove necessary.

b. Vested Rights

As could be expected, our interviews disclosed considerable apprehension about the effect of the Pinelands Comprehensive Management Plan and new implementing regul-

ations on on-going or planned development activity in the Pinelands area. As we stated in Volume 5 of our first report to the Commission, this conflict is inevitable any time new regulations are contemplated that will restrict or prohibit such activity. The question, quite simply, is how to deal with this conflict.

The Municipal Act provides that preliminary approval of a major subdivision or site plan confers certain rights upon the applicant for a three year period; generally, new regulations other than those related to "public health and safety," cannot be applied to affect those proposals which have obtained preliminary approval during this period. If the subdivision or site plan involves 50 acres or more, the planning board may extend the exemption period beyond three years. The following factors must be considered to grant an extension:

- (1) the number of dwelling units and nonresidential floor area permissible under preliminary approval,
- (2) economic conditions,
- (3) the comprehensiveness of the development.

If the design standards applied to the project at the time preliminary approval was granted change during the exemption period, and the applicant receives an extension, he may be required to conform to the revised standards. (See NJSA Section 40:55D-49). Basically the same rules apply to final approval of a site plan or major subdivision, except that the exemption period runs for a period of two years after final approval. (See NJSA Section 40:55D-52)

In Bleznak v. Township of Evesham, 170 N.J. Super. 216, 406 A.2d 201 (1979) a landowner who obtained site plan approval prior to a change in development regulations challenged these statutory provisions. In upholding his rights under the cited provisions of the Municipal Act, the court stated:

Any entrepreneur commencing a new venture, as here, embarks upon an uncertain journey. He cannot know whether he will succeed or fail and, if he succeeds, whether his building and other improvements will require changes in order to accommodate growth and other unforeseeable future events. If he is obliged to proceed with the knowledge that his future plans may be frustrated through zoning changes, he may well decide not to proceed at all since success will carry the seed of its own defeat. The Legislature recognized this circumstance and protected approved uses for specific periods of time as set forth in the statute. 406 A.2d at 203.

The Pinelands Commission is, of course, not subject to the Municipal Land Use Act. The question of how on-going and planned development will be handled by the Commission after adoption of the comprehensive management plan remains, therefore, unresolved. The standard now applied by the Commission pursuant to Section 9 of the Act, in the Preservation Area is:

Applications for approval of development or construction within the Preservation Area will only be granted if the Commission finds that such approval is necessary to 1) alleviate extraordinary hardship OR 2) to satisfy a compelling public need AND the approval is consistent with the purposes and provisions of the Pinelands Protection Act and the federal act, AND would not result in substantial impairment of the natural resources of the Pinelands area.

The standard now applied in the Protection Area is:

Applications for approval of development or construction within the Protection Area will only be granted if the Commission finds that such approval is necessary 1) to alleviate extraordinary hardship OR 2) to satisfy a compelling public need OR 3) is consistent with the purposes and provisions of the Pinelands Protection Act and the federal act AND would not result in substantial impairment of the natural resources of the Pinelands area.

While each element contained in these standards relates in a general way to the vested rights/estoppel standard discussed in Volume 5, the "extraordinary hardship" standard, as amplified by the following current Commission regulations, is most directly related:

Applications for development or construction will be considered as meeting the requirements of extraordinary hardship in the following instances:

1. Applications where it may be demonstrated that a substantial commitment of monies or resources directly associated with physical improvements to the land were made in good faith reliance on local approval received prior to February 8, 1979; or
2. Applications where in good faith reliance on local approval received before February 8, 1979, it may be demonstrated that the applicant incurred financial obligations to a lending institution which, despite a thorough review of alternative solutions, the applicant cannot meet unless construction proceeds; or
3. Applications where the applicant is an individual who purchased a single lot or group of adjacent lots prior to February 8, 1979, for the purpose of constructing one single family dwelling for use of his or her family as its principal residence and delay in construction will result in a significant demonstrable financial detriment to the applicant; or
4. Applications where the applicant, for demonstrated reasons of health or safety, must develop on property owned by the applicant prior to February 8, 1979; and
5. Applications where it may be demonstrated that no alternative means are available to alleviate the hardships as listed above during the planning period.

This standard appears to us to be a detailed explication of the vested rights standard used by the New Jersey courts. See e.g. Burcam Corp. v. Planning Board of Township of Medford; 168 N.J. Super. 508, 403 A.2d 921 (1979); Morris v. Postma, 41, N.J. 354, 362, 196 A.2d 792 (1964); Sautto v. Endenboro Apartment, Inc., 84 N.J. Super. 461, 202 A.2d 466 (1964).

Many persons interviewed expressed the concern, however, that, if this "extraordinary hardship" standard is applied in conjunction with the requirement that the proposal also not "substantially impair" the natural resources of the Pinelands area, there is little possibility for the "vested rights" traditionally protected by the New Jersey courts to be recognized. Under the interim provisions of the Act, this circumstance is mandated. Slightly more flexibility may be possible under the provisions of the Act relating to post-plan regulation. Nevertheless, traditional vested rights law recognizes the need to balance even a "vested" private right against the public harm that would result from recognizing that private right. We will be giving special attention to this sensitive area in our preliminary drafts of the regulatory program.

2. Need to Minimize the Detrimental Effect of Multiple Permitting Through Coordination and Clarification of Procedures

a. Submission Requirements

The Municipal Act does not specifically define the parameters of application submission requirements. Con-

sequently, there is a wide variation from municipality to municipality regarding information which applicants are required to submit. The variation reflects in part, of course, the variation in substantive regulations. Some municipalities have no specific requirements for submissions on environmental issues. Most have at least some requirements although each application is reviewed on an ad hoc basis.

In Medford Township, for example, an application for preliminary plat approval for major subdivisions must include, among other things, the following information:

4. The locations and dimensions of railroad rights-of-way, bridges and natural features, such as soil types, wooded areas, lakes and rock outcroppings within the subdivision, and the locations of individual trees outside of wooded areas of 4" D.B.H.; and proposed location of shade trees.

5. All existing and proposed watercourses, including lakes, streams, ponds and marsh areas, accompanied by the following information or data:

(a) When a running stream with a drainage area of 150 acres or greater is proposed for alteration, improvement or relocation, or when a structure or fill is proposed over, under, in or along such a running stream, evidence of results of pre-application meeting with the New Jersey Division of Water Policy and Supply or such agency having jurisdiction shall accompany the application.

(b) Profiles and cross sections at 100-foot intervals of all effected watercourses, at an appropriate scale, showing the extent of the flood plain area, top of bank, normal water level and bottom elevations.

(c) When ditches, streams, brooks or watercourses are to be altered, improved or relocated, the method of stabilizing slopes and the measures to control erosion and siltation during construction, as well as typical ditch sections and profiles, shall be shown on the plan or accompany it.

(d) The total upstream acreage in the drainage basin of any watercourse running through or adjacent to a subdivision including the distance and average slope upstream to the basin ridge line, where applicable.

(e) The total acreage in the drainage basin to the nearest downstream drainage structure and the acreage of that portion of the subdivision which drains to the structure, including the distance and average slope downstream to the structure.

(f) The location and extent of drainage and conservation easements and floodway and flood hazard area limits.

(g) The location, volume and water level elevation of all existing or proposed lakes or ponds on or within five hundred (500) feet of the subdivision.

(h) Plan, profile drawings and computations for any storm drainage systems, including:

(1) All existing and/or proposed storm sewer lines on site or within the area affected by the subdivision, showing size and location of each inlet, manhole or other appurtenance. All onsite drainage systems shall show size, profile, slope of lines, pipe material type, strength class or thickness and bedding type.

(2) The location and construction documentation for any proposed dry wells, groundwater recharge basins, detention basins, flood control devices, sedimentation basins and other water conservation devices.

* * *

12. Information concerning test borings, ground levels and direction of flow shall be obtained by a licensed engineer in accordance with the following standards:

a.	To a 2-acre site	1 test hole
b.	2-acre site	3 test holes
c.	3-acre site	6 test holes
d.	5-10-acre site	8 test holes
e.	11-40-acre site	10 test holes
f.	41-100-acre site	16 test holes
g.	Over 100-acre site	20 test holes

These borings shall be distributed over the tract to adequately represent site conditions and shall be to a depth of ten (10) feet and shall be taken in January, February, March or April.

13. An environmental impact statement containing data reflecting:

a. Nineteen (19) maps of the subdivision derived by the applicant from each of the nineteen (19) maps of the Ecological Map Atlas.

b. The recommended regulations appropriate to the subdivision or site as indicated by the maps of the Ecological Map Atlas and derived by the applicant from the recommended regulations and summary conclusions described in Article IV, Section 405-E hereof.

c. Such additional ecological data as the applicant may desire to submit.

d. A statement describing and explaining the impact and effect of the proposed subdivision or site plan upon the ecological systems and environment of Medford Township's lands and waters, giving consideration to the applicable natural processes and social values of:

- (1) Geology
- (2) Aquifers
- (3) Hydrology
- (4) Depth to seasonal high water table
- (5) Run-off management units
- (6) Soils
- (7) Potential soil loss
- (8) Soil nutrient retention
- (9) Vegetation
- (10) Recreation value of vegetation
- (11) Terrestrial wildlife habitation
- (12) Historic value
- (13) Physiography
- (14) Microclimate
- (15) Scenic units
- (16) Limnology
- (17) Wildlife - high value areas
- (18) Wildlife - hazardous and nuisance species
- (19) Wildlife - rare and beneficial species

e. By reference to the summary conclusions and recommendations, the statement shall identify specifically which of the four categories and subcategories of regulation described below are or are not applicable to the proposed subdivision and where a category or regulation is deemed to be applicable, a description shall be furnished of the action proposed to be taken or avoided to minimize any adverse effect on environment or ecology. The categories and subcategories involved are those set forth below designated categories A through D, as follows:

Category A - Regulations to avoid hazard to life and property from:

- Subcategory 1. Flood
- Subcategory 2. Fire

Category B - Regulations to prevent hazard to life and health resulting from human activities related to use of:

- Subcategory 1. Surface water
- Subcategory 2. Water table
- Subcategory 3. Nutrient application

Category C - Regulations to minimize loss of unique, scarce and valuable resources:

- Subcategory 1. Historic
- Subcategory 2. Vegetation
- Subcategory 3. Wildlife
- Subcategory 4. Scenic
- Subcategory 5. Water recharge
- Subcategory 6. Geologic

Category D - Regulations to minimize social costs by proper management of:

- Subcategory 1. Aquifers
- Subcategory 2. Soil loss
- Subcategory 3. Vegetation
- Subcategory 4. Recreation use of vegetation
- Subcategory 5. Wildlife habitats
- Subcategory 6. Land use

f. In reviewing an Environmental Impact Statement, the approving authority may refer the statement to a qualifying consultant at applicant's expense to obtain comments and suggestions with respect thereto, and may consider such information in deciding whether to approve, request modifications, or formulate general terms or conditions subject to which approval may be given, or reject the application.

g. Specific plans proposed by subdivider to alter, preserve or enhance existing vegetation, including landscaping and topographical and natural features of the land within the proposed subdivision.

14. Composite Environmental Constraints Map. As a result of the review of the Medford Ecological Study, the applicant shall, utilizing the Medford Ecological Study information and further information obtained by the applicant and his environmental con-

sultants upon specific and detailed review of the site, present a plan indicating the features for preservation and features which represent any constraints for development, the areas least suitable for development, and various degrees of suitability between these two extremes.

15. Streams and Water Quality Standards in conformance with Article VI.

16. Landscape Plan shall be provided. The landscape shall be submitted on a plan which shows all utilities, utility easements and retention ponds, existing and proposed grading. All existing trees to remain and all proposed planting shall be indicated including street trees, buffer planting, entry planting and recreation planting. A plant schedule, including the following, shall be submitted: number of plants, plant symbol, botanical name, common name, caliper, height, spread (for evergreens), condition and remarks.

Galloway, Shamong and Stafford Townships have similar requirements. But contrast the extensiveness of the above requirements with those required for preliminary site plan approval from another municipality:

6. Site Plan Details Required For Preliminary Approval

The preliminary site plan shall be based on tax map information or some other similarly accurate base and shall be neatly and accurately drawn to scale. The following information shall be included:

- a. Boundaries of the tract, north arrow, scale, date of preparation or latest revision, zone district(s) in which lot(s) is(are) located, a small key map showing the general location of the parcel to the remainder of the municipality.
- b. Existing and proposed streets, parking spaces, loading areas and driveways.
- c. Size, height, location and percent of building coverage for all existing and proposed buildings, structures and signs. The landscaping plan including existing and proposed wooded areas, seeded and/or sodded areas, grading, buffer areas, shrubbery, retaining walls and lighting details.
- d. All dimensions necessary to confirm conformity to the Zoning Ordinance such as building setbacks, building heights, yard areas.

e. All lands under the jurisdiction of the New Jersey Department of Environmental protection as affected by the Wetlands Act of 1970 (NJSA 13-9A et seq.).

f. The proposed location of all drainage, sewerage and water facilities. It must be shown that storm water run-off from the site is so controlled that off-site erosion is neither caused nor worsened.

Without commenting on the substantive implications of any of these provisions, a number of procedural observations can be made. If standard substantive regulations are to be promulgated by the Pinelands Commission, implemented by local government, and municipal decisions reviewed by the Commission, some effort should be directed towards standardizing the materials and information submitted to the municipalities. Work towards a standard application form has been done on the state level by DEP; in our own previous work in New Jersey, we have devoted considerable attention to this problem; several Pinelands communities also have good models. All of this work will provide a good beginning for a Pinelands application form. Standardized submissions for particular types of applications can facilitate not only the actual process of review and decision-making, but also, due to greater availability and accessibility of data, the evaluation of the effectiveness of implementation of regulations.

Standardization of the type of information received by the municipalities must be carefully crafted, however, to consider the impact on the various administrative staffs. Many of the municipalities have no planner at

all; some have only a part time engineer. In these municipalities receipt of the type of information required by some of the townships in their Environmental Impact Reports will be a waste of resources -- they simply do not have the professional staff to review and evaluate highly technical material. Nor are these municipalities eager or willing to hire additional staff to accommodate the interests of another agency. Our interviews revealed a recurrent concern about the capacity of existing municipal staffs to handle either additional planning functions or more sophisticated review requirements imposed by the Pinelands Act. On the other hand, however, the Act's stringent time limits and concern for co-ordination make it imperative that applications filed for local development approvals contain sufficient information to allow independent, intelligent review by the Commission in those cases that come to it under Section 14 of the Act. This need is unaffected by the absence of local staff resources and by local indifference to matters which, under the Act, must be addressed by the Commission.

There is no easy answer to this problem but at the very least a balancing should be drawn between the need for highly technical information to allow proper evaluation of development proposals and the concerns of applicants and administrators that the information be useable. Care needs to be exerted, for example, to ensure that all information, but particularly environmental information, not become "boilerplate lingo" passed on by a developer's consultant

from one developer to another (as has happened in one Township). Similarly, the information requested should not be so extensive that local review bodies are tempted to ignore it even when it is properly submitted. Information provided by an applicant should, in summary, be in sufficient detail and in proper form to permit the effective administration of land use regulations. In addition, consideration should be given to so structuring application requirements so as to segregate those matters of technical detail that will be of more interest to the Commission than to local review bodies and to the possibility of providing, in one form or another, for Pinelands staff assistance to those communities not equipped to review such technical data.

b. Co-ordination of Reviews

A second major area of concern with permit co-ordination is how the Commission's review process will mesh with the local review process. This is an area where some concerns are relatively easy to resolve while others may present major difficulties, not so much because of inherent conflicts as because of the need to work within the statutory dictates of two statutes, the Municipal Land Use Law and the Pinelands Act, which are not always as consistent as one might hope.

The problem with meshing the two systems begins with deciding when an application is in sufficient form to start the procedural process and clock running. The Muni-

cipal Act refers to the time limits in connection with a "complete" application. (See e.g. NJSA 40:55D-61) There is no definition of what is complete, but the definition of "Application for development" is:

...the application form and all accompanying documents required by ordinance for approval...
(emphasis added) NJSA 40:55D-3

Under many of the municipal ordinances we reviewed, time limits begin at the point of "submission," an undefined term. This has reportedly created some unnecessary difficulties for some applicants. Other municipalities have merely picked up the language cited above from the Municipal Act. Many local officials and citizens specifically addressed this issue in our interviews and voiced the concern that there be some mechanism for avoiding disputes over time periods and burdensome, last-minute requests for unanticipated but necessary information. The need to address the problem in an effective way is certainly increased by the addition of another level of review authority. Without careful attention to this problem, it would be conceivable that the entire local review process could be completed based upon submissions that would be inadequate for Commission review, resulting in extraordinary loss of time, effort and money for all concerned.

Fortunately, this aspect of the problem is easy to resolve. We have previously drafted ordinance provisions specifically addressed to resolving this problem in the context of the Municipal Land Use Use Law. Generally, it

has been our experience that it is useful to have a specific definition of what a "complete" application is, to have a procedure for determining when an application is complete, and to have all time periods begin only after such determination. The only special aspect of the problem in this case is that, again because of time limits and the desire to maximize procedural co-ordination, the application submitted at the local level will have to be "complete" within the definition of the regulations of both the relevant local government and also the Commission. To address this aspect of the problem, we will be recommending a pre-submission sign-off procedure whereby the Commission will certify the completeness of an application for its purposes before the applicant submits it to the local agency.

Once an application is in proper form, the concern becomes how to process it so as to accomplish the Pinelands goals, protect local interests and prerogatives and avoid needless effort by officials, staff and applicants. Based on all our work to date, it appears that local governments should have "primary jurisdiction" over most, if not all, applications for development in the sense that the local review process should be the main vehicle for development review with the Pinelands review process being a "backstop" to be sure that locally approved developments are consistent with the Pinelands plan. On the other hand, however, it also appears that there will be few applications, at least at the beginning, that can be totally ignored by the Commission.

Perhaps the most obvious approach to these competing concerns would be to allow local review of all applications to run its full course and then to "call up" all approved applications for final review by the Commission. While such a system has some definite advantages and should be given further consideration, it also has some distinct disadvantages. First, it would put a tremendous burden on the Commission and would divert the Commissioners too much from their important planning function. Second, because of the interplay of the Pinelands Act, the Municipal Land Use Law and the Administrative Procedure Act, such a review in all cases would present a number of serious procedural hurdles and might lead to unavoidable compromises between the need for careful review, the need for due process and the need for speedy action. Third, every application would be delayed by Pinelands review. Fourth, Pinelands review would come so late in the process that it would be difficult to modify the proposal to take account of Pineland's concerns and any modification would probably have to be referred back to the local agency. Fifth, a Pinelands denial would come only after both the local agency and the applicant had devoted considerable time, effort and money to the application process. Finally, and perhaps most important, such a system would provide no regular means for interchange between local and regional planners so that no process of mutual growth, education and understanding could develop.

Despite all these problems, the Section 14 call up jurisdiction following final local approval is clearly an important tool in the Pinelands scheme of regulation and, as such, it cannot be totally abandoned. Our goal, however, would be to devise a system that reduces as much as possible the need to rely on this rather awkward procedural device. We believe the beginnings of such a system were suggested by many of the local officials with whom we spoke. Those officials told us that, in order to accomplish the regional goals of the Pinelands Act, municipalities need assurance that if they are to take part in the implementation of such goals -- and they want to -- there will be sufficient educational and staff input from the Commission to make effective control at the local level a reality. We heard repeated requests that Commission staff representatives be made available to assist local governments. The locals find it difficult to establish the necessary working relationships with a staff in New Lisbon which is relatively invisible and inaccessible.

It was therefore specifically suggested to us by several townships and counties that a Pinelands liaison program be established whereby a single staff person would represent the Commission in a limited geographical area of the Pinelands. The staff person's responsibilities would include attending local development application hearings, being available by telephone and in person for informal advice and generally becoming familiar with local develop-

ment problems in order to better advise locals and to keep the Commission informed. The municipalities eager to work with the Commission have no resentment toward having their decisions reviewed in an appellate process but feel that if they had Commission staff input when a development application is filed and reviewed at the local level, they would better be able to conform their decisions to Commission goals in the first instance. They believe a liaison program would be educational as well as supportive and would eventually enable local governments to rely less and less on Commission guidance for informed decision-making at the local level.

Building on the liaison idea, we are exploring various alternative mechanisms that would allow Pinelands staff input to the local review process at an early stage. The degree of input will undoubtedly vary depending upon the nature and type of development proposed but the goal will be to mesh Pinelands staff review and technical input into -- rather than at the end of -- the local review process. If such a system can be made to work, it should leave the great majority of decision-making in the hands of local officials, should assure adequate consideration of Pinelands policies in the local review process and should minimize the occasions upon which post-local discussion and review under Section 14 of the Pinelands Act is necessary.

B. Substantive Provisions: Consistency and Conflict

The objective of this Section of our report is to generally identify those existing local environmental standards and other substantive areas of regulation which need attention. As discussed in the previous Section of this Chapter, the great majority of townships have in place procedural mechanisms for reviewing local development applications. These procedures are for the most part consistent because they have been enacted pursuant to the detailed provisions of the Municipal Land Use Law. Perhaps because that law was not designed to and does not provide much in the way of substantive standards by which to judge applications, the existence and effectiveness of such standards vary greatly at the local level.

The planning requirements in the Municipal Act have produced a wide variety of plans with considerably different levels of sophistication. One township, for example, employed one of the nation's reknown ecological planners to conduct an extensive analysis of the township's environmental problems in order to design ordinances to address the environmental concerns and the housing and development needs of the Township. This study which, almost ten years ago cost the Township over \$100,000, is in sharp contrast with some of the plans adopted by other municipalities which were prepared by non-professional members of planning boards. Local development philosophies and substantive regulations run the full spectrum. All of the

townships studied have zoning maps which classify land within the jurisdiction for permitted uses, but some municipal ordinances have no specific environmental requirements at all. Although some ordinances do include such requirements, no ordinance studied provides every category of environmental protection necessary to meet the goals of the Commission and the substance of the environmental regulations which do exist varies considerably from township to township. Even where ordinances contain some environmental criteria, application of those criteria is dependent upon an ad hoc review of each development proposal. Although this method is successful in some townships, that success is probably due to the quality and force of the individuals in charge of review and not to the strength of the written standards. Even assuming vigilant implementation at the present time, without written guidelines, there is no way to guarantee future effectiveness.

In light of this local picture, adoption of Commission environmental standards is essential and unavoidable if the Commission is to fulfill its statutory duty. However, because of the wide divergence of local activity in this area, it is also clear that, if the Commission promulgates standards of its own, there will be overlap and conflict with some local regulations.

1. Land Use Issues

All townships selected have designated the land within their jurisdictions for specific land uses. However,

the uses permitted by local zoning within the Pinelands area may not be in all cases consistent with the use regulations the Commission will deem necessary to protect the Pinelands. A look at zoning maps, infill requirements and creation of special districts reveals that existing land use designations, while they begin to approach a philosophy compatible with Pinelands protection, nevertheless need more work to implement all Pineland's goals.

Depending on the location within the Pinelands, local zoning may allow either more or less restrictive uses than will be consistent with the land use plan adopted by the Commission. Many townships, for example, have not treated specially the lands now designated as the Pinelands Protection Area. Therefore, local land use designations do not work to make such areas serve as a buffer to the Preservation Area. Instead, local zoning in the Protection Area runs the full gamut from agricultural to commercial uses and from five acre to quarter acre residential lots.

Specific problems will also surface when the Commission defines what are to be the "developing areas" of the Pinelands. One of the more environmentally concerned of the municipalities is now experiencing much development pressure because of its proximity to Atlantic City. That part of the township which is within the Pinelands Protection Area is zoned for agriculture and two to four acre single family development. Because it wants to retain the rural character of that area, it looks forward to help from

the Commission. However, this area may well be within what will be designated as a "developing area" of the Pinelands.

Another township, on the other hand, lies just far enough away from Atlantic City that it may fall outside the boundaries of the same "developing area." However, here there is great animosity towards the Pinelands program. Although this township says it would like to retain its rural character, it would also like to see the town fully developed under its present zoning. That portion of the town within the Pinelands Protection Area which is not state owned is now zoned for a combination of residential densities ranging from three acre down to half acre lots. In addition, there are small pockets of land zoned for neighborhood and highway commercial use.

Beyond the specific land uses permitted on areas of land within a municipality, conflicting land use philosophies may also be found in less obvious provisions of local ordinances. For example, Section 8b of the Pinelands Act contains a statement of the goals of the Act for the Protection Area. These goals include two policies directed at promoting "contiguous" or "infill" development:

(4) Discourage piecemeal and scattered development; and

(5) Encourage appropriate patterns of compatible residential, commercial and industrial development, in or adjacent to areas already utilized for such purposes, in order to accommodate regional growth influences in an orderly way while protecting the pinelands environment from the individual and cumulative adverse impacts thereof.

Few, if any, municipalities express similar goals for the Protection Area in their ordinance. On the other hand, although the Pineland's Act makes no express reference to an infill or contiguous development policy for development in the Preservation Area, a few townships have attempted to provide such a policy for their jurisdictions. In one township, located within the Preservation Area, the Master Plan provides for residential zones from 10,000 square foot lots to 5 acres. The 10,000 square foot lots are permitted in an area which was partially developed at that density prior to the New Jersey Department of Environmental Protection Pine Barrens Water Quality Standards. The other two primary residential zones provide for one half and one acre lots. The statement of purpose provides:

It is the purpose of these zones to provide for relatively small lots and dwelling units in the areas of the community that are already constructed and are largely built up in accordance with the characteristics of the housing therein for the purposes of stabilizing and protecting the characteristics of the area.

Another Township which is in both the Preservation and Protection Areas is eager to confine further development to infilling previously built up areas and is presently considering extending its 5 acre zone to a broader area.

It has been suggested that the absence of an express infill policy for the Preservation Area in the Pinelands represents a conflict with the infill policies of those municipalities within the Preservation Area. While the Act does differentiate between the Preservation and

Protection Areas, the Act certainly does not prohibit infill development in the Preservation Area per se. Quite to the contrary, these beginnings of a local recognition of the importance of encouraging infill development should be viewed as signs of hope for consistent regional and local policies.

To further promote infill and anti-sprawl goals, it is important that a township not require those offsite improvements which would by their very existence service and thereby invite future development which otherwise would not have been able to begin. The better approach is to require development to connect and rely on existing services. No ordinance surveyed contained this goal expressly. However, several local officials felt strongly about concentrating development in already partly developed areas and do strive in development negotiations to implement this goal. Another potential conflict will emerge if the Commission's efforts to concentrate development include provisions on clustered development. A few townships adamantly oppose clustered residential development and have ordinances which prohibit common wall housing of any type. If the Pinelands plan provides for mandatory or even permissive clustering, it will run counter to the goals of those townships that believe only single family detached dwellings will preserve the character of the area.

One helpful concept already applied throughout the Pinelands area is the delineation of special zoning dis-

tricts designed to address environmental issues. These special districts, in force in many townships, are, on the surface, consistent with the Pinelands goals. Many ordinances we reviewed include, for example, a "Pinelands Conservation Zone." Other zoning districts which at least conceptually facilitate the goals of the Act are Historic Village Residential Districts, Agricultural Districts, Forest-Recreation Districts and Flood Plain or Wetland Districts. Conservation zones typically allow large lot residential development although lot sizes vary from township to township. One township's conservation district permitted reduced improvement requirements including streets, sidewalks and drainage in order to maintain the area's rural character. Although a few townships' ordinances reveal a real effort to conform land use to Pineland's goals, most substantive regulations, even within conservation districts, either are missing entirely or are, at best, inadequate to completely implement these goals.

2. Environmental Performance Standards

The environmental resources of the Pinelands area will ultimately be protected by the promulgation of substantive standards by which development of permitted uses is judged. The following areas of protection have already been identified as crucial to the review process by the Commission: the degrading effects of stormwater runoff; maintenance of air quality; protection of threatened plant and wildlife species and other plant and animal species indi-

genous to the Pinelands area; hazards of flood and fire; protection of the aesthetic integrity and value of critical and sensitive area, cultural and recreational sites; the preservation of ground and surface waters; and the protection of all headwaters of all streams flowing within the Pinelands.

The local jurisdictions which we sampled within the Pinelands have ordinances which control these environmental problems to varying extents. Some townships have only minimal controls. No ordinance among those we reviewed evidences restrictions for every area of concern. The majority of ordinances surveyed contain some environmental criteria by which applications are reviewed but contain no definitive rules for approval or denial based on environmental standards. To the extent that local governments are asked to perform a development review role under the regulations that implement the Pinelands comprehensive management plan, there is a definite need for uniform standards from the Commission to control development and guide local governments.

We do not in this report suggest what the substance of future regulations should be. The scientific consultants to the Commission will recommend the best method of protecting each important ecological resource of the Pinelands. Furthermore, it would be impossible, and, we feel, unnecessary, to discuss here every local environmental regulation. We have chosen instead to discuss a few environ-

mental concerns and to show by example the variety of relevant local regulations now existing in an effort to support what we feel is an obvious conclusion: The Commission must create and adopt those substantive standards which are necessary to protect Pinelands resources and which will be applicable throughout the Pinelands area.

a. Stormwater Runoff

Because drainage seems to be the environmental issue with which local officials are most concerned and a problem that every ordinance surveyed addressed, we are able to give it rather thorough examination here. It is a prime example of an environmental topic which presents a potential conflict and which demonstrates the need for uniform standards by which to review development applications in the Pinelands region. While every local government interviewed expressed concern for drainage controls, their ideas about the best way to control runoff and their ordinance requirements conflicted dramatically. No two townships we sampled had identical drainage requirements.

(1) Retention v. Detention

There is within the Pinelands area, as may be the case nationally, a philosophical split of opinion regarding the best way to control stormwater runoff. The issue of debate is whether on-site retention is necessary or even desirable. All would agree that the best drainage management plan would allow stormwater to drain from developed land at the same rate and volume it would have were the land

not developed. However, with some exceptions, the officials and engineers interviewed expressed grave doubts as to whether sufficient data about natural drainage and water flow exists to require runoff to meet natural runoff rates and volumes. At least one township feels that in the absence of such data, all stormwater must be retained on site. However, others, acknowledging the absence of the necessary data, feel that total on site retention is too rigorous a requirement and ask for a combined detention/recharge/controlled outflow system. One jurisdiction does claim to have the necessary stream flow data to require outflow in accordance with natural runoff.

At the other end of the spectrum is the township which opposes on site retention because it in itself is an environmental problem. This township found, after years of requiring on site retention, that the retention basins were pollution generators requiring municipal interference to protect the citizens and aquifer. The township now employs a planner who favors on site retention and suggests perhaps faulty construction of the earlier retention basins. The township, however, refuses to switch from its present requirement: temporary detention basins with controlled outflow.

Another township evidently refuses to choose sides in the on site versus off site dispute. Its ordinance allows a developer to choose whether he wants to implement an on site storage system or a detention/outflow system to deal with stormwater runoff.

(2) Varying Drainage Standards in Local Ordinances

A good example of the great variety in the environmental standards of local governments is evident from a review of the township ordinances' drainage requirements. The most sophisticated drainage engineering data is found in the ordinance of a township which allows the developer to choose retention or detention/outflow basins. Their land management code includes "design standards" which govern site plan and subdivision approvals. The design standards for drainage systems states a general requirement:

The system shall be adequate to carry off and/or store the storm water and natural drainage water which originates not only within the subdivision boundaries, but also that which originates from the total natural watershed surrounding the property in question. No storm water runoff or natural drainage water shall be so diverted as to overload existing drainage systems or create flooding or the need for additional drainage structures on other private properties or public lands without proper and approved provisions being made for remedying these conditions.

The ordinance requires use of the rational method formula and prescribes complete and specific design criteria for flow, velocity, collection basins, catch basins, detention basins and retention basins.

Another fairly comprehensive ordinance finds equally acceptable the rational method, the soil conservation service method, and the computer method so long as the criteria of the land development ordinance is met. The land development drainage criteria include:

- a. To prevent any reduction in the volume of flood plain storage along existing waterways;

b. To provide detention basins with outlet flow control and/or additional flood plain storage as necessary to prevent peak rates of outflow after development of a tract from exceeding the peak rates prior to said development;

c. In any case where an existing waterway traverses a tract of land to be developed, the volume of flood waters stored in the waterway and the related flood plain between the normal low water elevation and the flood elevation as determined by the Design Storm Frequency in Table 15 shall be no less after development than prior to development unless a proper plan of flood flow storage and/or discharge is presented and approved by the County Engineer;

d. Where possible, the maintenance of the flood plain storage volume shall be accomplished by leaving the flood plain area undisturbed.

e. Where it is necessary to disturb the flood plain area in any way that reduces the volume of the flood water stored therein, additional flood plain storage volume shall be provided elsewhere along the stream as necessary to compensate fully for such reduction subject to approval by the New Jersey Department of Environmental Protection.

f. In any case where the development of the property will increase peak runoff rates, detention basins and/or additional flood plain storage shall be provided as necessary to offset such increases.

g. Where peak flow reduction is to be accomplished by provision of a detention basin, the peak rate of outflow permitted would be that occurring prior to development, using the predevelopment time of concentration, or a time of concentration of sixty (60) minutes, whichever is greater.

h. The rates and volumes of inflow shall be based on similar assumptions to those that are used in the Rational Formula, and the duration of storm used to determine such rates and volumes shall be that which will require maximum storage. In general, the duration of the critical storm will be appreciably greater than the time of concentration of flow into the basin.

In addition to drainage criteria for land development, this ordinance also specifically addressed watershed drainage criteria, roadway storm drainage and erosion and sediment control.

A third township requires a "drainage plan" for subdivision approval but only sets forth general performance standards by which to judge that plan. Furthermore, the performance standards are geared to a full drainage system which carries off all storm water on the site and which does not provide for retention or detention on site:

711. DRAINAGE - All streets shall be provided with catch basins and pipes where the same may be necessary for proper surface drainage. The requirements of this section shall not be satisfied by the construction of dry wells. The system shall be connected to an approved system where one exists and shall be adequate to carry off the storm water and natural drainage water which originates within the development boundaries and that which originates beyond the development boundaries and passes through the development calculated on the basis of maximum potential development as permitted under this Ordinance. No storm water run-off or natural drainage water shall be so diverted as to overload existing drainage systems or create flooding or the need for additional drainage structures on other lands without proper and approved provisions being made to alleviate such conditions and assure proper surface drainage.

711.1. The duration of a storm used in computing storm water run-off shall be equivalent of the time required for water falling at the most remote point of the drainage area to reach the point in the drainage system under consideration.

711.2 The pipe size determined to be adequate for the run-off computed shall be increased by at least one (1) standard pipe size for the type of pipe being used in order to provide adequate allowance for the normal accumulation of sediment and debris in the storm drainage system. In no case shall the pipe size in a surface water drainage system be less than fifteen (15) inches in diameter.

Finally, a review of the ordinances of a fourth township reveals absolutely no requirement for stormwater runoff save lot coverage restrictions.

(3) Maximum Lot Coverage Requirements

An indication of concern for drainage problems can typically be found in a zoning ordinance's maximum amount of permissible site coverage. The township we interviewed most eager for development nevertheless allowed only a maximum of 10-15% coverage on each residential lot. A 40% maximum is allowed for commercial lots. Another township's restrictions range from 25% to 50% maximum coverage depending on type of use and whether the proposed development site contains prime or non-prime soils. In still another township the ordinance contains no lot coverage restrictions whatsoever.

In another township, we happened upon a heated political debate which centered on maximum coverage for commercial development. One faction insisted the present ordinance's 15% maximum was necessary to control drainage problems. The other faction felt the 15% requirement too stringent and wanted it changed to 35%.

It is our opinion, after reviewing a number of local ordinances for stormwater runoff controls that while one or two ordinances may be adequate to enforce the applicable township's philosophy, there is nevertheless great inconsistency in the level of protection provided throughout the region. Furthermore, the philosophy of some townships with respect to the retention/detention dispute may directly conflict with that of the Commission.

(b) Sewers/Septic

The continuing battle over the acceptability of sewer and septic systems and their effect on water quality and the location of future development in the Pinelands is reflected in the way the municipalities with which we spoke deal with the issue. All municipalities expressed concern for protection of ground water but most are doubtful that adequate data exists to know precisely what lot size can support an individual septic system without damage. Most local jurisdictions want to retain the rural character of their area and therefore do not want to see the areas sewer-ed. At the same time they want to allow development on realistic lot sizes and some are feeling pressures from higher levels of government to at least extend lines to existing treatment plants.

Municipal ordinances typically provide that where public sewer systems are accessible to a proposed development, a developer will be required to hook into such system. Where a sewer system is not accessible, individual septic systems must be provided. The decision as to whether existing lines are close enough to be "accessible" is made by officials on an ad hoc basis and, we found, susceptible to political pressures. In the majority of ordinances surveyed, minimum residential lot size varies depending on whether sewer or septic service is provided. However, the minimum lot size permitted for septic ranges anywhere from 1/4 acre to one acre lots in the different jurisdictions. An ordinance may in addition generally provide:

No use shall allow any pollutant into ground, air or water that exceeds the most stringent applicable state or federal regulation.

Some municipalities require a developer to demonstrate suitability of the relevant soil for septic systems by requiring environmental impact reports or at least percolation test results. Others have conformed use districts to topographical and soil studies allowing development only where soil conditions permit. At least one township is attempting to gather data to determine the minimum size lot capable of supporting a septic tank without harming the environment. Medford has required developers to install permanent monitoring wells at various locations on their developments in order to ascertain the level of ground water degradation resulting from the development. Preliminary results of these tests now reveal that a one acre lot may not be large enough to accommodate a septic system for a single family dwelling.

Although most communities are not eager to see development serviced by sewers, some areas have public sewer systems already in place and object to the denial of permits by the Pinelands Commission where residential developments propose to install pipes to connect to existing public trunk lines. On the other hand, some local officials believe that the Commission favors the installation of public sewers because they have seen the Commission deny approval to subdivisions serviced by septic systems.

(c) Fire Hazard

One of the goals expressed in the Pinelands Act is the restriction of that development which will interfere with the use of fire in the maintenance of the Pinelands ecology or which will be threatened by natural fire hazard conditions. One township does require the submission of a "fire protection plan" as part of an environmental impact report. However, no township studied has specific regulations with respect to fire hazards except to the extent that use districts which severely limit development might coincide with those areas requiring periodic fires or having a history of natural fire hazards.

(d) Air Quality and Noise Pollution

No local ordinance that we examined contains specific air quality or noise standards to which proposed development is required to adhere. A few ordinances however require environmental impact statements which assumedly would include air pollution and noise data. Others state:

No use shall emit heat, odor, vibrations, noise or any other pollutant into the ground, water or air that exceeds the most stringent, applicable state and federal regulations.

Most areas of the Pinelands have obviously not experienced the amount or type of development that would make air quality a pressing concern. However, virtually every township indicated a continuing effort to attract industry to their jurisdiction. At some point noise and air quality must be addressed and development standards promulgated if the presently pristine air and quiet environment of the Pinelands is not to be degraded.

(e) Grading, Excavation and Fill Restrictions

Mining operations presently exist in a few townships and are permitted in restricted districts. With the exception of such mining districts, there are only general standards governing grading and fill for proposed development. Most townships require development application submissions which include grading plans designating degrees of slope before and after development. Only one ordinance we read, however, specifies an amount of grading or degree of slope that will not be permitted. One of the more detailed regulations provides only:

All lots where fill material is deposited shall have clean fill or topsoil deposited which shall be graded to allow complete surface draining of the lot into local storm sewer systems or natural drainage courses. No regrading of a lot shall be permitted which would create or aggravate water stagnation or a drainage problem on site or on adjacent properties, or which will violate the provisions regulating soil erosion and sediment control, soil removal or flood plain contained in this Ordinance. Grading shall be limited to areas shown on approved site plan or subdivision. Any topsoil disturbed during approved excavation and grading operations shall be redistributed through the site.

Some townships include conservation, floodplain or other sensitive area districts in which removal or alteration of any soils is typically not permitted.

(f) Flood Plain Regulations

Several townships within the Pinelands region contain large areas zoned for flood plain protection. Even if we assume that all flood plain areas are accurately zoned as such, we have found widely disparate treatment of them in

local development regulations. For example, in one township with considerable flood plain acreage the only development activities permitted, and then only in the least crucial areas of the flood plain, are:

- (a) parks, playgrounds and conservation areas
- (b) growing and harvesting of crops
- (c) improved parking areas
- (d) underground utilities
- (e) sealed public water supply wells

This ordinance goes on to specifically prohibit buildings and structures, storage, fill or change in elevation within a flood plain area. Furthermore, any area designated as flood plain on the master plan must be shown on a plat as a conservation easement and dedicated to the public. However, another township with considerable flood plain acreage has no specific regulations which directly relate to the flood plains. In fact, the only recognition of the flood plains area of that township is that larger minimum lot sizes are required in those areas.

(g) Woodland and Tree Protection

Many but not all townships prohibit the removal of trees of a certain caliper on a proposed development site and require site plans to identify them. At least one ordinance prohibits stripping of trees or use of fill around trees unless the approved grading plan requires the removal of trees in which case the tree removed must be replaced by one of the same caliper. It is typical that in flood plain

or other designated critical areas no tree may be removed unless it is diseased. A few townships promote woodland preservation by making identification and preservation of such areas an incentive to PUD approval. Still other localities have actually designated and zoned certain areas as woodland or agricultural/woodland. One township restricts clearing when forest cover exceeds 60% of the parcel to be developed. The restrictions are keyed to the zoning district involved. It has been suggested that the percentage of the site which can be cleared under these provisions is difficult if not impossible to attain. Furthermore, where clearing is permitted under these regulations, forest stands which remain must be a minimum of "three crown widths as determined by the average tree canopy of that particular forest." Only one township surveyed addresses commercial lumbering activity. In that ordinance, commercial lumbering is a permitted use in stream encroachment areas, but must conform to DEP standards and be supervised by the area forester.

(h) Streambed Protection

Although several of the jurisdictions surveyed have some limitations on development activity in a streambed corridor, some townships have none. Of those with no regulations, at least a few identify the streams themselves on their maps as critical areas.

One township discussed above with specific floodplain regulations includes rivers and streams and the ad-

joining land "which has been or may be hereafter covered by flood water of the channel" within the floodplain district. Another township addresses streambed protection separately. It describes a stream corridor as "that land lying within fifty (50) feet of the edge of any stream, pond or lake or within twenty-five (25) feet of the center of any intermittent stream." Prohibited uses include:

dumping or storing of any human or animal wastes, junk, trash, scrap, oils, chemicals, metals or other hazardous material or any material that will alter the natural composition of soil and water.

Permitted uses are limited to:

agriculture, lumbering, fishing, swimming, boating, hunting, picnicking, hiking trails, bicycle paths, wildlife observation and environmental study posts and any activity promoting the conservation of soil, vegetation, water and marine and terrestrial species.

This type of provision is, in the great majority of cases, conspicuously absent from local land use regulations.

Conclusion

The actual success of local land use regulations to date in allowing only that development which is compatible with regional interests of the area has varied considerably depending on the philosophies of the local individuals reviewing applications and the amount and type of development pressure the specific jurisdiction has experienced. In order to protect regional interests in the future there must be, on the part of local governments, a recognition of the effect of their individual land use decisions on the Pinelands region as a whole. At the same

time, the success of the Pinelands Act is in large part dependent on the support of local governments. It is imperative, therefore, for the Commission and its staff and consultants, to be sensitive to the concerns of local officials.

In drafting regulations to implement the Pinelands comprehensive management plan which are consistent with the intergovernmental scheme envisioned by the Pinelands Act, the Commission may require local governments to revise their land use plans and ordinances to conform to the adopted comprehensive management plan. The procedural mechanisms for local review of development applications for the most part already exist at the township level. However, the Commission must address a number of procedural issues which relate to the Commission/ local government interface; this may require mandating limited changes in existing local procedures. The comprehensive plan and implementing regulations must also be cognizant of the need to protect individuals affected by the plan and regulations from detrimental affects of multiple permitting and of the need to clarify the procedural rights and responsibilities of all persons affected by the regulations.

Local substantive regulations present more of a problem than local procedures. Significant revisions in the substantive elements of local ordinances will be required. The Commission must adopt environmental criteria by which all development applications are reviewed and these regional

standards must be incorporated into local ordinances and enforced at the local level. In some cases, this substantive revision must be expected to produce local concern; in many others, however, it is more a matter of developing a consistent approach than of undoing local policies and preferences. In all cases, the task will be greatly facilitated to the extent that the Commission can produce substantive regulations which are easily adaptable by local governments.

This report of local attitudes and concerns should be concluded with a general point repeatedly voiced in our local interviews. While, as we have here reported, there is some degree of local tension and concern about what shape the Pinelands program will take, the Commission should be aware that there are also many local officials and other interested persons who are decidedly glad that a regional body has been created with adequate staff and consultants to begin the creation of the environmental standards which local governments now lack. These officials look forward to a harmonious working relationship with the Commission and staff in order to preserve the Pinelands area. The challenge is to nurture and build upon such positive attitudes.

CHAPTER TWO

REVIEW AND ANALYSIS OF STATE REGULATIONS

This chapter discusses procedural and substantive regulations of various state agencies in terms of their consistency and potential conflict with Pinelands goals, regulations and procedures. Our work in this area concentrated on those major state programs suggested by staff as representative of those most relevant to Pinelands regulatory concerns. Most of the state officials interviewed welcomed our inquiries and were eager to explain their regulations and procedures to us. Few saw any significant conflicts between their programs and Pinelands regulations, especially in the area of substantive standards. Instead, they evidenced a willingness to implement Pinelands-imposed standards if and when requested to do so. Even fewer of the state agency representatives responsible for the administration of the various programs had any specific suggestions for the Pinelands regulatory scheme.

However, a much greater degree of concern has been expressed by certain state officials with regard to the procedural aspects of Pinelands regulation. Representatives from the administrative division of DEP in charge of permit coordination, for example, have anxiously inquired as to whether the Pinelands regulatory approach will permit integration of the Pinelands program into the DEP "Master Permit Information Application Form." In addition, repre-

sentatives of the Office of Business Advocacy (OBA) in the Department of Labor and Industry (DLI) have expressed concern that the Pinelands regulations will impose just another regulatory layer to a permit structure already perceived by many as burdensome with respect to both time delays and information submission requirements.

As a general observation, however, it should be noted that all of the state officials contacted were receptive and expressed a willingness to work with the Pinelands Commission. Based upon the co-operative attitude expressed in the course of this study, it can be hoped that Pinelands staff will receive reasonable assistance from related state agencies in terms of data collection and review, that duplication of effort at the state regulatory level can be minimized, and that Pinelands' regulations will, in general, encounter a receptive attitude among state regulatory agencies.

As in the local chapter of this report, this chapter begins with a discussion of the major procedural issues that will confront the Commission in developing the Pinelands regulations. The various state agencies are addressed as a group in this section, as the procedural concerns remain relatively constant as one examines each individual regulatory program. The chapter then moves to a consideration of the substantive aspects of the various programs. At that point, several programs will be addressed on a categorical basis. The agency responsible for the implementation of each regulatory program will be identi-

fied, and the purpose of each program set forth. Specific provisions of implementing legislation and regulations may be set forth where appropriate. Finally, areas of consistency and potential conflict with Pinelands goals and policies will be identified and discussed.

A. Procedural Regulations

1. Time Limitations: The 90-Day Act and Executive Order No. 57

A most important aspect of the Pinelands Act is its requirement that the Commission review and make determinations upon development proposals within a 45 day time period. Several implications of this requirement and issues raised by it have been discussed above with regard to inter-relationship with the local permitting process. The potential relationship of the 45 day requirement with the mandates now imposed upon several New Jersey state agencies under the State's 90-day Act and Governor Byrne's Executive Order Number 57 must be considered.

The 90-day Act applies to the following State permit applications: CAFRA, Wetlands, Waterfront Development, Stream Encroachment and Treatment Works. The Act requires that permit applications either be deemed complete or that additional information be requested within 20 working days of submittal. If additional information is requested, the application is "construed to be complete" when that information is received.

Subsequently, permit applications must be approved, conditionally approved or disapproved within 90 days

of the date that the application was deemed complete, unless a 30 day extension has been mutually agreed to. If the reviewing agency fails to take action within the 90 day period, applications are deemed approved.

The requirements are slightly varied for CAFRA applications, however. In the case of CAFRA applications, decisions must be made within 60 days of a required public hearing unless additional information is requested, in which case the decision need not be made until 90 days after receipt of the additional information.

Executive Order No. 57 takes a more expansive view of permit processing by state agencies. The Order directs New Jersey state agencies to coordinate their various permit programs. The Order authorizes the creation of the Governor's Cabinet Committee on Permit Coordination, through which many of the State's recent efforts at permit coordination have initiated. Finally, OBA has been given the authority to encourage the expeditious and coordinated treatment of permit applications on behalf of applicants. OBA offers permit application assistance to any applicant who requests it. OBA's most significant contributions are generally arrangement of and attendance at pre-application conferences and requests for speedy processing in cases that present extenuating circumstances.

Section 14 of the Pinelands Act requires that Commission determination upon Pineland developments be made

within 45 days of transmittal of notice that review will be undertaken. Notice of review must be transmitted within 15 days of final local approval of the subject development. Thus, the Commission could be limited to a maximum 60 day period in which to conduct its review of a particular project.

Most other state agencies, however, are not so constrained in terms of time limits. Five state permits are subject to the mandates of the 90-day Act, and others are subject to the "expeditious treatment" provisions of Executive Order No. 57. Thus, the potential data exchanges and informal joint reviews suggested in this report could be much more difficult to arrange due to the relatively short review period allocated to the Pinelands Commission. Other agencies, which theoretically have 90 days or more in which to conduct their review, are unlikely to be able to gather all the information that could be helpful to the Commission in time for the Commission to give it careful consideration and make a determination within 45 days.

On the other hand, OBA's authority to encourage expeditious treatment could be used to persuade relevant agencies to act more quickly on applications subject to Pinelands review. Such applications could be given priority by the various state agencies. Furthermore, time limitations might be imposed upon the agencies for Pinelands developments. Alternatively, of course, the legislature could be approached with a recommendation that the Pinelands

Commission 45 day review limit be extended in order that Pinelands review might be coordinated with the reviews of other relevant state agencies. However, before any of these steps are taken, every effort should be made to structure the Pinelands review process so as to make it workable, and effective, within the constraints imposed by all of the various statutes that interact in relation to development in the Pinelands. As with local procedures, we are now engaged in an effort to develop such workable alternatives.

2. CAFRA Procedures

A closer look at the procedural requirements imposed by the CAFRA legislation and regulations should be instructive in terms of illustrating a feasible approach to procedural regulation. It is suggested that the Commission study and consider the benefits of the CAFRA procedures in determining the nature of the procedural provisions that should be incorporated in the Pinelands regulations.

The CAFRA regulations encourage prospective applicants to consult with the Division of Coastal Resources, which administers all of the coastal permit programs, before obtaining preliminary or final municipal approval, noting that CAFRA supplements other New Jersey laws, including the Municipal Land Use Law. Thus, the CAFRA application process usually begins with an optional pre-application conference. These conferences were devised by DEP in order to frankly discuss the strengths and weaknesses of proposed projects and possible revisions or alterations that could increase

the likelihood of project approval. The regulations also provide for candid discussion regarding the level of detail and areas of emphasis necessary in the required environmental impact statement (EIS).

Following the pre-application conference, the Division is to prepare a written "memorandum of record" which is to be mailed to the potential applicant within 10 days of the conference. The memorandum is to summarize the discussion had at the conference and must be included as part of the EIS if a formal application is thereafter submitted. Copies of the memorandum are also sent to relevant municipal and county planning boards.

A CAFRA application must include a completed DEP Form CP-1, the application fee, and an EIS. The regulations provide that twenty copies of the EIS must be submitted, seventeen of which are presently distributed to various state agencies for substantive and technical review and comment. The regulations also require distribution of the EIS to the following local agencies: county planning board, county environmental commission, municipal planning board, municipal environmental commission (if any), and the appropriate Soil Conservation District. An affidavit certifying distribution to the above local agencies must be presented to the Division before the application is deemed to be complete.

Once the CAFRA application is deemed "complete for filing," the Division prepares a "preliminary analysis" of

the permit application in order to provide the applicant and the public with an initial appraisal of the application. Comments from the other state agencies to which the EIS was distributed are incorporated in this analysis if received within twenty days after notification of completeness for filing. Copies of the analysis may be released to all interested persons and are made available at subsequent hearings.

As mentioned above, the CAFRA legislation sets forth specific time limits applicable to that program which differ from the limits set forth in the 90-day Act. The public hearing required by CAFRA must be scheduled within fifteen days of receipt of an application complete for filing and must be held no later than sixty days from such date. Oral and written presentations may be made by interested persons. Within fifteen days of the hearing, the Division may request the submission of additional information for review of the application; alternatively, the applicant may submit additional information for the review on his own initiative. Applications are not considered "complete for review" until the date of public hearing or, in the case where additional information is submitted, the date that the additional information is received.

The Commissioner of DEP has delegated the responsibility for making CAFRA permit decisions to the Director of the Division of Coastal Resources. Decisions on permit applications must be made within sixty days of the public hearing, or, if additional information was required, within

ninety days of the declaration that the application was "complete for review." If the Division fails to take action within the applicable time period, the application is deemed approved "subject to the conditions normally imposed on approved permits."

There exist two avenues of appeal from initial CAFRA permit application determinations. The statute provides for appeal directly to the Coastal Area Review Board. The Board may modify any CAFRA permit granted, grant a permit that had been denied, or confirm the grant of a permit. While the matter is before the Board, informal conferences and negotiations may be held between DEP, the developer, and other dissatisfied persons in an attempt to resolve conflicts. If the post-decision administrative process does not satisfy all parties, the CAFRA determination may be appealed to the courts.

Alternatively, the regulations state that any interested person may first seek an "Appeal to the Commissioner" within twenty-one days of publication of the permit application decision in the "DEP Weekly Bulletin." This hearing is to be a "quasi-judicial hearing" before a hearing officer appointed by the Commissioner to make findings of fact, conclusions of law and recommendations to the Commissioner on whether to affirm, modify or reverse the initial decision. Parties to the appeal may file exceptions to the hearing officer's findings within fourteen days. The Commissioner must make a determination on the appeal within

twenty-one additional days. Finally, this determination may be appealed to the Coastal Area Review Board pursuant to the procedures outlined above.

Several aspects of the CAFRA procedures could prove beneficial if incorporated into the Pinelands review process. For example, the pre-application conference provides an opportunity for the Commission, through its staff, to influence development applications long before the point of final local approval, and, like the early entry into the process discussed in Chapter One, allows for the consideration of Pineland's concerns at the point in the process where such consideration can be, at once, effective and non-disruptive of other review processes. In addition, such a conference allows the developer and the regulator a chance to identify those areas that are most affected by the regulations and discuss how they can best be dealt with, thus reducing conflicts that may arise later during the formal permit process. The minimization of conflicts and promotion of understanding between the regulator and regulated no doubt has a direct impact on the acceptability, if not the success, of any regulatory program.

The CAFRA procedure of distributing copies of the submitted EIS for comment by other agencies is another relatively simple technique of co-ordination and cooperation that may have special relevance to the Pineland's program. Many state regulatory programs, especially those addressed in this report, contain several aspects of interrelationship

with potential Pinelands concerns. Several of these programs would, in the course of their reviews, collect data with respect to one or more of the factors to be considered in the review of Pinelands applications, such as air quality, flood hazards and water quality. Thus, the Commission should consider the possibility of co-ordinating its data needs with those agencies and of soliciting the comments of those agencies as part of either its formal or informal review process.

Finally, the use in the CAFRA program of techniques such as delegation of decision-making authority to the professional staff and quasi-legislative hearings should be given serious consideration as devices to speed decision-making, to avoid unnecessary formality and rigidity in the decision-making process and to conserve Commission time for major program functions.

Many of the CAFRA procedural techniques just discussed are not specified in the CAFRA legislation, but are required by the regulations promulgated pursuant to that legislation. Similarly, although these techniques are not expressly provided for in the Pinelands Act, we believe that they can be implemented under the several general grants of power set forth in section 6 of the Act. The most significant of these powers are found in section 6j, which authorizes the promulgation of such administrative rules and regulations "as are necessary in order to implement the provisions of this act," and section 6k, under which the Commission may

"appoint advisory boards, commissions or panels to assist in its activities."

3. General Procedural Requirements:
The Potential for Joint Review

The sort of comment procedure instituted under CAFRA has great benefit and its benefits can be enhanced (while reducing the overall burdens on developers) by co-ordinating data submission requirements as much as possible. However, we have serious doubts as to whether more drastic co-ordination devices are necessary or useful -- at least at this time. Given the broad sweep of the Pinelands Act, it would be possible for the Commission to take unto itself a good deal of authority now exercised by other state agencies. However, we see no merit in such a sweeping pre-emption of authority. Many permits now issued by state agencies involve technical areas of significant complexity. There is little point in the Commission duplicating the effort and expertise necessary to deal with those areas -- even in pursuit of the much-sought "one-stop shop." The Commission, must, of course, be cognizant of the policies and regulations being enforced by those agencies to assure they are in harmony with the Pineland's policies, but we believe that goal can be largely met by the development and refinement of substantive guidelines within the context of the on-going planning process.

We are nearly as skeptical about the supposed benefits of highly formalized "joint permitting" programs in which all agencies carry out their independent review and

permitting functions simultaneously. Such programs have some merit where all the permits are of the same generic type, but we doubt that that will be the case here. The Pinelands review process will focus much more on general land use problems than do most state permitting programs. In this regard it is more like a local land use program than a state sewer or road program. Developers and citizens are accustomed to getting general land use approvals which are "subject to" other, more strictly technical approvals and we believe that, on balance, the Pinelands program will function more smoothly within that mold. In fact, this appears to be the way the program has naturally evolved thus far. Most of the state regulatory program administrators with whom we spoke indicated that their agencies do not accept permit applications for review without a Pinelands Commission "sign-off."

This approach is not, however, without its own serious disadvantages. Such a seriatim approach can lead to an increase in the time necessary to process permit applications as well as to a considerable duplication of effort where the regulatory concerns of the agencies and the Pinelands Commission overlap, as they undoubtedly will to an extent somewhat greater than in the case of the local land use programs to which we have thus far analogized the Pineland's program.

To some extent, the problem in trying to co-ordinate the Pinelands program with any other is that it is neither

fish nor fowl. It has aspects similar both to a highly discretionary, policy oriented local zoning program and also to a high technical, non-discretionary state environmental or public facilities program. In light of this, efforts at co-ordination may have to be less formal and structured than might otherwise be the case -- but that is not to say there should be no such efforts.

We have already suggested that unnecessary delay and duplication at the local level can be reduced by the participation of the Pineland's staff in the local process, perhaps on an informal basis, to the extent necessary to assure Pineland's policies are properly understood and considered. A similar approach seems possible at the state level. Here, again, the effort would be to let the existing state programs carry off the specialized functions for which they were created while at the same time promoting free communications between them and the Pinelands program as to assure that regulators in all programs were aware of the special concerns of the counterparts in other programs.

One example of this type of informal co-ordination can be seen in the current cooperative effort between Pinelands staff and DEP's Bureau of Water Quality Planning and Management, which administers the Critical Areas program. The Bureau has been forwarding copies of applications to Pinelands staff upon receipt from the local agency involved. Generally, the Bureau will take no action upon the application until it receives a Pinelands approval. If, after

screening the application, however, Pinelands staff requests a water quality review from the Bureau, the review will take place and the results are sent to the Commission. A formal critical area determination will not be made, however, until after the Bureau has been notified of a Pinelands approval. Many other agency representatives have expressed a willingness to engage in some form of joint review process with Pinelands staff. Officials from the stream encroachment and treatment works approval programs have, for example, stated that they would engage in an informal consultation procedure with regard to their respective areas of expertise if requested.

B. Substantive Provisions

Review and comment upon the substantive aspects of the various state regulatory programs in terms of consistencies and potential conflicts should begin with examination of the Pinelands Act and Interim Rules and Regulations in this regard. The Pinelands Act sets forth "goals" for both the protection and preservation areas. Section 8b states that the goals with respect to the protection area shall be:

(1) Preserve and maintain the essential character of the existing pinelands environment, including the plant and animal species indigenous thereto and the habitat therefor;

(2) Protect and maintain the quality of surface and ground waters;

(3) Promote the continuation and expansion of agricultural and horticultural uses;

(4) Discourage piecemeal and scattered development; and

(5) Encourage appropriate patterns of compatible residential, commercial and industrial development, in

or adjacent to areas already utilized for such purposes, in order to accommodate regional growth influences in an orderly way while protecting the pinelands environment from the individual and cumulative adverse impacts thereof.

With regard to the preservation area, section 8c states that the goals shall be as follows:

(1) Preserve an extensive and contiguous area of land in its natural state, thereby insuring the continuation of a pinelands environment which contains the unique and significant ecological and other resources representative of the pinelands area;

(2) Promote compatible agricultural, horticultural and recreational uses, including hunting, fishing and trapping, within the framework of maintaining a pinelands environment;

(3) Prohibit any construction or development which is incompatible with the preservation of this unique area;

(4) Provide a sufficient amount of undeveloped land to accommodate specific wilderness management practices, such as selective burning, which are necessary to maintain the special ecology of the preservation area; and

(5) Protect and preserve the quantity and quality of existing surface and ground waters.

Under the Interim Rules and Regulations, the fundamental test appears to be that of "no substantial impairment." The Rules and Regulations also evidence several areas of substantive interrelationship with many individual state regulatory programs. Thus, in determining whether the "no substantial impairment" test has been met, the following factors are among those that are to be considered: impact upon air quality, protection of plant and wildlife species, flood hazards, effects of stormwater runoff, protection of critical and sensitive areas and the preservation of all ground and surface waters.

1. Air Quality

The New Jersey statutes provide that no "equipment or control apparatus" may be constructed, installed or altered until an application including plans and specifications is submitted to the Department of Environmental Protection (DEP) and a permit is issued therefor. "Equipment" is defined to include any device capable of causing the emission of an air contaminant into the open air, and "control apparatus" means any device to prevent or control such emissions. The statute excludes only one and two-family dwellings, or dwellings of six or fewer family units if one of them is owner-occupied. The Bureau of Air Pollution Control has been designated by DEP's Division of Environmental Quality to administer the permit program mandated by the statute.

The Bureau requires the submission of an "Application for Permit to Construct, Install or Alter Control Apparatus and/or Equipment" and an "Application for Certificate to Operate Control Apparatus or Equipment." One Bureau representative noted that air quality permits are often tailored for various types of equipment and thus stated that the specific items of information that might be required for any particular permit application cannot be determined in advance. Generally, plans and specifications are initially submitted with the application form and specific additional information is submitted subsequently if and when required by the Bureau on the basis of their initial

review. Such additional information may include descriptions of processes, raw materials used, operating procedures and physical and chemical nature of air contaminants.

The New Jersey Administrative Code contains numerous pollution control rules, including regulations that set forth ambient air quality standards. Generally, these standards are to assure "ambient air of the highest purity achievable by the installation and diligent operation and maintenance of pollution source control devices and methods consistent with the lawful application of the most advanced state of the art." Specific air quality standards are then set forth for suspended particulate matter, sulfur dioxide, carbon monoxide, photochemical oxidants, hydrocarbons and nitrogen dioxide.

The statute directs that no permits shall be issued unless the applicant demonstrates that his equipment is designed to operate without violating air quality regulations, with the exception that renewal certificates may be issued if the subject equipment incorporates applicable advances in the art of air pollution control. One Bureau official has stated that the general guidelines for application review is "the best possible equipment -- best possible processing and best possible control equipment." He added that the Bureau's position with regard to the burning of such substances as coal, sludge and toxics is currently in a state of flux.

Air quality is a stated concern of the Pinelands Commission and it is possible that Pinelands air quality standards could be more stringent than those of DEP, at least in some areas. In many areas of the Pinelands, a pristine air quality level may be essential to preserving a sensitive ecosystem. Thus, DEP's "state of the art" review may not be adequate to assure the appropriate level of air quality in certain Pinelands areas; it may be that only land use control of potential sources will solve this problem. In other cases, however, a review by DEP under its current standards might be sufficient to guard against any deleterious impact upon Pinelands air quality.

2. Coastal Areas

The three components of the New Jersey coastal program, CAFRA, Wetlands and Waterfront Development, were discussed in Volume Two of our first report to the Commission and a revised and updated description of the CAFRA process is included in section A of this chapter.

Geographically, there is a significant area of overlap between the "Pinelands area" as defined in Section 10 of the Pinelands Act and the CAFRA area; this area is centered in Atlantic and Burlington counties and covers Washington, Bass River, Little Egg Harbor and Eagleswood townships. There is also an extensive overlap between the CAFRA coastal area and the Pinelands National Reserve area; in this area, the Commission has no direct review jurisdiction over development applications. However, as to both of

these areas, Section 22 of the Pinelands Act specifically provides that DEP shall:

. . . review . . . the environmental design for the coastal area as it affects the planning and management of the development and use of any land in the coastal area which is also within the boundaries of the Pinelands National Reserve, make any necessary revisions to such environmental design as may be necessary in order to effectuate the purposes of this act and the Federal Act, and prepare and transmit to the commission a report detailing the provisions of the environmental design as so revised and as applicable to such land.

The Director of the Division of Coastal Resources has indicated that this review will be conducted as soon as the Pinelands Plan is available and that he anticipates no serious problems with it. However, given the similarity of concerns and jurisdictions, this is an area that demands continuing close attention by both agencies.

DEP's Division of Coastal Resources, which administers the coastal programs, considers the Coastal Resource and Development Policies set forth in the Administrative Code to be their basic guideline in the review of permit applications under CAFRA, the Wetlands Act, and the Waterfront Development Permit Program. Fortunately, a brief review of the Coastal Resource and Development Policies illustrates an apparent general consistency with Pinelands goals and policies. In this regard, the Coastal Policies could be instructive in the development of Pinelands regulations necessary to assure the integrity of plant and animal habitats, wetlands and other areas of mutual concern to the two agencies.

The DEP regulations state that these policies were developed "to increase the predictability of the Department's coastal decision-making by limiting administrative discretion, as well as to ensure the enforceability of the coastal resource and development policies of the State of New Jersey. . . ." Basically, the regulations are divided into location policies, use policies and resource policies.

The location policies classify all land and water features into four categories: Water Areas, Water's Edge Areas, Land Areas and Special Areas. Special Areas are simply selected areas within the other three categories that merit more focused attention because they constitute a highly valued natural resource, serve important purposes of human use, or form a significant natural hazard. The Special Area policies supplement and take precedence over the more general location policies.

Some significant examples of Special Areas are: prime fishing areas (recreational and regulated commercial uses only), submerged vegetation (destruction absolutely prohibited), endangered or threatened wildlife or vegetation species habitats (development that would "adversely affect" prohibited; sufficient buffer required), bogs and freshwater wetlands (development that would "adversely affect" functioning prohibited) and critical wildlife habitats (development "discouraged" unless minimum interference, lack of alternative and appropriate mitigation demonstrated).

Water Areas policies vary according to the depth of the water basin, flow of the water channel and the proposed use. Decisions focus primarily upon the assimilative capacity of the specific water area, which indicates the amount of adverse impact or pollutants that a water body can absorb and neutralize before it begins to display a significant reduction in biological diversity, chemical or physical water quality. Assimilative capacity is generally determined on the basis of two factors -- water volume and flushing rate.

Generally, development is discouraged in Water's Edge Areas. Development may be permitted, however, if it satisfies all of the following conditions: (1) requires water access or is water-oriented as a central purpose, (2) has no feasible or prudent alternative on a non-Water's Edge site, (3) is immediately adjacent to an existing Water's Edge development, and (4) would cause minimal feasible alteration of on-site vegetation.

Determination of specific policies for Land Areas depends upon three factors: the specific Coastal Region in which the site is located, the environmental sensitivity of that area and the development potential of that area. Environmental sensitivity is based upon the existence of vegetation, fertile soils and high percolation wet soils. Development potential -- high, medium or low -- is determined according to the presence or absence of various development-oriented elements at or near the site of the

proposed development. Examples of these elements include roads and sewage disposal facilities.

Several specific use policies are set forth in the regulations. For example, cluster development, residential mix and fair share housing are "encouraged," while uses such as Water's Edge housing and new amusement piers, parks and boardwalks are either discouraged or prohibited.

Finally, proposed developments are reviewed in terms of the resource policies. This review involves an examination of the potential effect of the development upon the built and natural environment of the coastal zone at both the site and the surrounding region. The following resources are among the many considered in the review: water, soil, vegetation, wildlife, air, public services and scenic resources and design.

Despite this general tone of consistency, it must be remembered that the Pinelands Act mandates extraordinarily rigorous protection of the Pineland's environment by, for example, dictating the preservation of "an extensive and contiguous area of land in its natural state" and prohibiting "any construction or development which is incompatible with the preservation of this unique area." Thus, the potential for substantive conflict in policies should be carefully monitored during the mandated Section 22 review of the CAFRA environmental design.

With reference to the jurisdictional overlaps of the two programs, we would suggest that strong consideration

be given to a full delegation of DEP's CAFRA authority to the Commission within the Pineland's area and to an expansion of DEP's authority in the National Reserve Area to allow it to exercise control over all development with a potential for adversely impacting the Pinelands environment. While we have not yet thoroughly analyzed the issue, on discussion with Deputy Attorney General Hluchen, we believe it may be possible to accomplish both of these goals without new legislation. Section 11 of the Pinelands Act gives DEP authority "in addition to" its authority under CAFRA. At least arguably this additional authority would allow it to amend its Coastal Policies to provide that, within the Pineland's Area, compliance with Pineland's Commission policies and procedures should be deemed to satisfy CAFRA and that, within the National Reserve Area, "facilities" (such as 24 unit subdivisions) which are exempt from CAFRA will nevertheless require a permit under DEP's Pinelands Act authority.

3. Flood Plain Management

The recently amended New Jersey "Flood Hazard Area Control Act" is administered by the Bureau of Floodplain Management within DEP's Division of Water Resources. The Bureau Chief has described his responsibility under this legislation as that of preserving the 100 year flood area for the free flow of flood waters.

The new legislation directs the Division to delineate and mark "flood hazard areas" and to adopt land

use regulations for, and control stream encroachments in, such areas. Furthermore, the Act requires the Division to coordinate the development, dissemination and use of flood information; to authorize the delegation of certain administrative and enforcement functions to local governing bodies; and to integrate flood control activities of municipal, county, state and federal governments.

The flood hazard area consists of the "floodway," which is defined as the channel of any natural stream and adjoining land areas reasonably required to carry and discharge the flood flow of that stream; and the "flood fringe area," which is to be delineated by the Division based upon its decision that improper development and use of such area would result in a threat to safety, health and general welfare from flooding. Floodway delineations are to be identical to floodways delineated under the National Flood Insurance Program whenever practicable.

The Division is currently working on the rules and regulations directed to be promulgated under the new Act. Those regulations are to be designed to preserve the flood carrying capacity of the floodway and minimize the threat of floods to public health, safety and general welfare. Furthermore, the Act also authorizes the promulgation of regulations for any area within the 100 year flood plain of all non-delineated streams. The Chief of the Bureau of Floodplain Management expects that these regulations will be completed during the Summer of 1980.

The Act also authorizes the delegation of authority to enforce the floodplain regulations to county governing bodies. Thus, permit applications under the Flood Hazard Area Control Act may be acted upon by county authorities in the future if they have been delegated the power of review pursuant to a judgment that they are "capable of utilizing the rules, regulations and standards adopted by the department for the administration of [the] program." Any delegation made under this provision will be reviewed at least biannually and may be revoked upon a finding of improper administration.

It should also be noted that the law requires the promulgation of minimum standards for the adoption of local rules and regulations governing land use and development in the flood fringe area. These standards are also expected to be promulgated this summer. Municipalities are to adopt their rules and regulations within twelve (12) months of promulgation of these standards. In the absence of conforming local rules, development in the flood fringe area will be subject to the state rules and regulations and must be approved directly by the Division of Water Resources. Until regulations are promulgated under the new Flood Hazard Area Control Act, permits for flood plain development and stream encroachment are being administered under the Stream Encroachment Act.

The Bureau of Floodplain Management is currently engaged in the delineation of the floodplain. Bureau offi-

cials note that most of the state's streams should be reviewed by the end of 1981. However, Pinelands streams are not being mapped at this time, and one official commented that great difficulty is expected in the mapping of those streams due to the Pinelands topography. It was suggested that Pinelands staff might be able to develop "flood plain" maps for the Pinelands based upon the broader preservation criteria of the Act. Such delineation should lead to adequate and definable setback lines for Pinelands streams, which Bureau officials have indicated they would be happy to observe. Bureau review of Pinelands applications could then be directed to the issue of whether any development permitted by the Pinelands Commission within the setback would violate the requirements of the Flood Hazard Area Control Act or implementing regulations.

Bureau officials stress the fact that they are not a preservation agency in any sense of the word. Permit determinations are based mainly upon engineering standards. One official noted that a permit could issue for a parking lot, even in a floodway, if the plans evidenced literal compliance with Bureau engineering standards. Thus, it should be noted that despite an apparent identity of interests between Pinelands and flood plain management goals with regard to flood hazards, DEP's legislative charge is narrower than the Pinelands goal of protecting flood plain and stream environments. Pinelands flood plain concerns are probably not adequately addressed under the existing state program,

and guidelines must therefore be developed to supplement that program and implement Pinelands goals and policies.

Finally, it should be noted that Bureau officials have suggested that the Pinelands regulations include an exemption for dam construction or repair work, leaving all jurisdiction over such work in the Bureau. Currently, dam permits are required for any dam construction that will raise the water level of a river or stream more than five feet above the usual mean low-water height, and for any dam repair of such an existing dam; except that no permit is required where the drainage area above the proposed dam is less than one-half square mile. Applications are reviewed on the basis of compliance with engineering standards. The Bureau also has the power to inspect existing dams and order any repairs or alterations required to maintain them in a safe condition. While some co-ordination, and even delegation in this area, seems possible and reasonable, we would not recommend any wholesale allocation of jurisdiction without careful delineation of what was involved.

4. Sewerage Facilities (Septics)

"Critical areas" have been mapped throughout the State of New Jersey, on the basis of watershed descriptors. The Bureau of Water Quality Planning and Management in the Division of Water Resources (DWR) of DEP is the agency that implements the critical areas program.

In 1972, DEP designated as critical areas portions of Monmouth, Ocean, Atlantic and Cape May Counties and those

parts of Burlington County adjacent to the Mullica River and its tributaries, lying between any tidal waterway and 10 feet above sea level. A 760-square mile area of the Pinelands (90% of the preservation area) falls within the "critical area" definition. Thus, no building permits may be issued in such areas until DEP has certified the sewerage facilities for the proposed unit.

DEP has adopted water quality standards that are specifically applicable to the Central Pine Barrens. Those standards are characterized as basically "nondegradation standards" and are based upon calculations of nitrate-nitrogen levels that will result from the proposed project. It has been suggested that these standards may be faulty as the result of inadequate testing and that Pinelands water quality must be protected through the implementation of much more stringent regulations.

An official of the Bureau of Water Quality Planning and Management has stated the Bureau will conduct reviews within the Pinelands on the basis of standards set forth in the Pinelands regulations if directed to do so. He saw no potential conflict between the Bureau and the Pinelands Commission, but did express concern regarding the necessity of defending in court any more stringent water quality standards. He suggested that the guidelines to be issued to state agencies to aid in maintaining conformance with the Pinelands Plan be as objective as possible and avoid the necessity of complex calculations for their administration.

He gave as an example specific setback distance requirements as opposed to complex water quality calculations whenever possible. The Bureau official also noted that the Bureau of Water Quality Planning and Management also reviews developments of fifty units or more for subdivision approval, as well as hospital, trailer and campground sites. He stated that the standards applied in those cases are really more construction-oriented and have little to do with water quality.

The topic of "alternate designs" was also discussed with Bureau officials. It was noted that some alternate designs have been developed that can meet DWR's Pinelands water quality standards even on very small lots. Thus, it was suggested that it will be necessary for the Pinelands Commission's regulations to take into account a broader range of factors if the overall goals of the Act are to be protected against a proliferation of alternate design facilities which meet water quality standards. It was also suggested that the Pinelands staff develop data with a view toward the possibility of regulating storm water runoff.

5. Transportation

New Jersey's Department of Transportation (DOT) administers on a regional basis a number of permit programs pursuant to the authority vested in it under the State highway laws. DOT's Region 3 (Burlington, Mercer, Middlesex, Monmouth and Ocean Counties) and Region 4 (Atlantic, Camden, Cape May, Cumberland, Gloucester and Salem Counties) include lands within the Pinelands area.

Generally, highway permits are reviewed on the basis of their potential impact upon the New Jersey highway system in terms of traffic volume and safety levels. Furthermore, the extent of the review of any particular proposal will depend upon the degree of its potential impact upon the system. Proposals determined to involve only minor or limited impact, for example, undergo only an engineering review by engineers within the appropriate regional office. Development proposals that are likely to have a major impact upon the highway system, however, are subject to a more extensive review. Major impact proposals are referred to DOT's Division of Design for more intensive engineering scrutiny by engineers assigned to that Division. Such proposals are also reviewed by DOT's Bureau of Highway Planning. That Bureau reviews proposals in terms of their impact upon the safety and efficiency of the highway network. DOT's "Highway Capacity Manual" assigns levels of service to all New Jersey highways, with grades ranging from good (A) to very poor (F). If a proposed major development would reduce the level of service by more than one grade or to grade F, some remedial measures such as widening of the road or provision of special access lanes will be required of the developer before the project would be approved.

Nevertheless, the scope of review for highway permits is quite limited compared to the broad goals set forth in the Pinelands legislation. DOT is basically concerned only with impact upon traffic volume and safety in

its review of such application. The Pinelands Commission, however, is likely to be concerned with the development of off-tract improvements such as highways regardless of such impacts. These improvements tend to encourage additional development which in many cases might not be consistent with the Pinelands Act. Therefore, DOT's permit review is unlikely to adequately consider major Pinelands concerns. However, highway system planning also takes place within DOT; thus, highway plans and planning guidelines should be addressed in the Pinelands Plan.

6. Treatment Works

Pursuant to the New Jersey Water Pollution Control Act, DEP has prescribed requirements for the construction, installation, modification and operation of any facility for the collection, prevention, treatment or discharge of any pollutant. Thus, treatment works approval is required prior to the construction and operation of any components of a sewer system, including interceptors, collectors, force mains and pumping stations, or any plant that will treat domestic or industrial liquid wastes and discharge to surface waters. DEP's review of such facilities is limited to engineering and physical design. Indeed, the regulations specifically provide that the scope of review shall be limited:

The review of applications and submissions to the Department for approval of treatment works is limited to engineering (including hydraulic) features of significance to applicable discharge

limitations and to protections of the environment. The Department shall not review structural, mechanical, or electrical design, except where the significant to the discharge limitations or to the environment.

The development of new treatment works in the Pinelands is another major consideration of Pinelands policy. The Interim Regulations address the concern with alteration of hydrologic balance as well as the possibility that the development of treatment works could stimulate new development that is not adjacent to or even in close proximity to existing developed areas and community services. Because treatment works approval under the existing DEP regulatory program is effectively based only upon engineering features, the existing state regulatory program is not likely to be of major assistance in achieving the goals of the Pinelands legislation.

7. State and Regional Planning

Our contacts with the various state agencies suggested by staff included an interview with representatives from the Department of Community Affairs' Division of State and Regional Planning. The Division is currently "holding a blank space" in its statewide plan until the Pinelands plan becomes available. The representatives with whom we spoke indicated that the Pinelands plan would be incorporated at that time. The same procedure was followed in anticipation of the coastal management plan promulgated by DEP pursuant to CAFRA.

The planners noted that one area of major concern to them was the housing and transportation needs of Atlantic

City. For example, the economic impact of Atlantic City development has given rise to the need for 130,000 new dwelling units, according to DCA's computations. Because the Pinelands area border is not far from the western edge of Atlantic City, provision should, in DCA's view, be made in the plan for Atlantic City growth. The planners were "inclined to think" that a Pinelands approach of concentrating development in certain specified "growth areas" would be logical and reasonable.

The specific role of the Pinelands Commission in possibly dictating areas of future growth was also discussed. One planner suggested that the Pinelands plan might impose upon local governments minimum densities for development in certain areas in order to assure areas for future housing development. We have some deep reservations about the legal ability of the Commission to adopt such a regulation and about its practical effectiveness to encourage housing development but would be happy to give it further consideration if it seems appropriate to the Commission.

Conclusion

Implementation of a coordination and consistency component applicable to the various state regulatory agencies with which the Pinelands program will interrelate should present no insuperable hurdles. The state officials contacted have expressed a general willingness to work with the Commission in order to implement Pinelands goals and policies in their respective jurisdictional areas. Development of

data exchange procedures and promulgation of substantive guidelines that can be followed by the various state agencies to ensure conformity with the Pinelands plan appear to be the keys to coordination at the state regulatory level.

Perhaps the greatest hurdle to be cleared in this area, however, is, as at the local level, the effective implementation of the "45 day limit" imposed by section 14 of the Pinelands Act, considering the legal and practical time limits facing other programs. We have suggested several techniques that might be utilized to deal with this limitation and "effectively" expand it, such as the pre-application conference, informal co-ordination and the delegation to staff of at least initial review authority. We will continue to study and refine these and other techniques in the course of preparing the Pinelands procedural regulations.

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